

Weather Event Simulator Case Study

Originating Office : WFO Jackson, MS
Date of Case : 6-7 April 2003
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Weather Event : Severe Weather - Tornado/Wind/Hail/Flooding.
Learning Objectives : Forecast Severe Weather Threat; Forecast Heavy Rain Threat
Issue Severe/Tornado/Flash Flood Warnings
Use of GFS/ETA to forecast severe weather and QPF. Heavy rain forecasting using older techniques and Corifidi Vectors.
Use of Satellite to anticipate severe potential. Use of %+ CG lightning for analysis of severe potential. Effect of mesoscale convective cold pool on low level boundary movements and resulting severe weather, rainfall production

Available Data : All radar data for KDGX (Jackson) and KGWX (Columbus AFB).
Lowest elevation angle data for KMOB
All AWIPS satellite imagery (CONUS and smaller scales).
Most gridded output and redbook graphics available.

Time Period of Data : 0000 UTC Apr 6 to 1200 UTC Apr 7, 2003.

Type of Simulation : Interval based and/or Real-Time combination

Completion Times : Severe/Heavy Rain Forecast and Warning (4-6 hours)
Severe/Heavy Rain Forecast only (~2 hours)
Severe and Flash Flood warnings (2-4 hours)

Additional Materials : HTML copy of simulation guide including damage images, will be loaded into a 2003Apr0607/HTML directory. The starting page is called Apr06072003.html.
Maps of JAN CWA are included for issuing HWO and QPF forecasts.
Storm reports and observed rainfall included for verification.
A warning log template is also included.

Installation : Use the CaseInstaller.tcl script to install the case specifying one (1) DVD, the appropriate directory (e.g., /data/awips) on the appropriate hard drive (e.g., /dev/sdb1). The case directory will be called 2003Apr0607.

Special Instructions : This case includes the WFO Jackson localizations for WES versions 1.2 and 3.3/4.0.